ABSTRACT

The present invention refers to conjugates of erythropoietin with poly(ethylene glycol) comprising an erythropoietin glycoprotein having an N-terminal α -amino group and having the *in vivo* biological activity of causing bone marrow cells to increase production of reticulocytes and red blood cells and selected from the group consisting of human erythropoietin and analogs thereof which have the sequence of human erythropoietin modified by the addition of from 1 to 6 glycosylation sites or a rearrangement of at least one glycosylation site; said glycoprotein being covalently linked to one poly(ethylene glycol) group of the formula

$$-CO-(CH_2)_x-(OCH_2CH_2)_m-OR$$

wherein the -CO of the poly(ethylene glycol) group forms an amide bond with said N-terminal α -amino group; and wherein R is lower alkyl; x is 2 or 3; and m is from about 450 to about 1350.

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